

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001606**Date Inspected:** 29-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** OBG 5AE,OBG 3BW**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Caltrans QA inspector was unable to access the paint shop as all the doors were locked in morning. The adhesion testing and hardness testing were scheduled for this morning jointly with ZPMC and ABF QA/QC personnel.

OBG 3BW

ZPMC personnel are currently in process of cleaning the spent abrasives from interior surfaces. Unknown start and finish blasting times and the blast nozzles continue to go on and off.

OBG 3BW

Joint inspection was performed with ZPMC and ABF QA/QC representatives. Ambient conditions were monitored and found within the parameters of the specification. Additional grinding of exterior base metal was required as well as the grinding of arc strikes, also re-blasting required to re-establish profile and comply with 8 hour window for coating application. Some holidays were evident and marked for repairs, abrasive blast profiles were 72-82um average after 6 tests were taken. Re-blasting commenced and was re-inspected the blast was SP-10 and Interzinc 22 application proceeded. Mixed coating temp 7C as indicated by ABF QC and observed by Caltrans QA inspector. The application commenced on exterior surfaces utilizing the airless spray method.

OBG 5AE

ABF and ZPMC inform Caltrans QA Lumley that the exterior surfaces had been water washed during the nightshift operations. QA observed water on floor adjacent to and beneath the segment.

OBG 3BW

SOURCE INSPECTION REPORT

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Caltrans QA Lumley observed and monitored the in process application of Interzinc 22, the applicator was leaving runs and sags and curtains in the wet film. ZPMC personnel are attempting to amend these deficiencies utilizing thinner and a paint brush to blend and feather these areas in. Currently the surface exhibits a non-uniform mottled appearance, this is due to poor applicator proficiency and spray technique. The applicators never let go of the trigger on the spray gun at the end of each pass nor are they utilizing the cross hatch pattern for airless spray application. Caltrans QA Lumley re-checked the same location after application operations had ceased. The repairs although visible appeared less severe. Poor lighting for all inspection and work purposes within the blast and coating shops.

OBG 3BW

Inspection was requested for interior surfaces. Base metal surfaces exhibited arc strikes, gouges, weld spatter and non SP-10 areas in the ceiling trough stiffeners. ZPMC QC obtained profiles and monitored the ambient conditions. ZPMC to amend deficiencies then re-establish profile on ground areas. NOTE: QA Lumley and Caltrans QA welding inspector, Steve Hall entered live blast area to check the depth of some arc strikes on the top exterior surface, visibility was extremely limited and the access was a hazard.

Summary of Conversations:

Caltrans QA inform ZPMC and ABF QC representatives he observed poor application technique when utilizing airless spray. The sprayers reached too far from surfaces, and utilizing generally poor technique workmanship during application to aid in minimizing dryspray. ABF and ZPMC QC personnel requested that Caltrans QA Lumley not to attend inspection of the interior surfaces at this time as they wished to perform their respective inspections prior to calling Caltrans QA.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang. (858) 699-9549, who represents the Office of Structural Materials for your project.

Inspected By:	Lumley, James
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Quality Assurance Inspector

Reviewed By:	Miller, Mark
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QA Reviewer
